

What is claimed is:

[Claim 1] 1. The system to record sound to photograph and to play back comprises:

- (a) Means for recording and digitizing the said sound to produce a digital sound data using microphone and various recorders;
- (b) Means for entering the said digital sound data into a Personal Computer;
- (c) Means for compressing and encoding the said digital sound data into a 2-dimensional barcode using the said Personal Computer;
- (d) Means for printing the said 2-dimensional barcode on to the side of the said photograph, which appears as a graphic picture, using the said Personal Computer and a printer;
- (e) Means for printing the said 2-dimensional barcode on to the back of the said photograph, which appears as a graphic picture, using the said Personal Computer and a printer;
- (f) Means for scanning the said graphic picture to produce digital data representing the information of the said 2-dimensional barcode, using the said Personal Computer and a scanner;
- (g) Means for decoding and uncompressing the said digital data of the said 2-dimensional barcode to produce the said digital sound data, using the said Personal Computer;
- (h) Means for playing the said digital sound data to sound, using the said Personal Computer and a speaker.

[Claim 2] 2. The method and program to recording sound to photograph and to play back, running in a Personal Computer, comprises:

- (a) An acquisition module to control sound acquisition device for recording the said sound to produce digital sound data;
- (b) A compressing and encoding module to encode the said digital sound data into a 2-dimensional barcode;
- (c) A printing module to print the said 2-dimensional barcode on to the back of the said photograph, which appears as a graphic picture;

(d) A printing module to print the said 2-dimensional barcode on to the side of the said photograph, which appears as a graphic picture;

(e) A scanning module to scan the said graphic picture on the said photograph to produce digital data representing the information of the said 2-dimensional barcode;

(f) A decoding and uncompressing module to recognize and decode and uncompress the said digital data of the said 2-dimensional barcode to produce the said digital sound data;

(g) A playing module to play the said digital sound data to the said sound.

[Claim 3] 3. The system to play back the sound from the 2-dimensional barcode printed on a photograph comprises:

A cellular phone which have an embedded camera, be used to shoot the said 2-dimensional barcode printed on the said photograph;

A decoding program and the playing program, running in the said cellular phone to decode the said 2-dimensional barcode and play back the said sound encoded in the said 2-dimensional barcode.

[Claim 4] 4. The system to play back the sound from the 2-dimensional barcode printed on a photograph comprises:

A digital camera which be used to shoot the said 2-dimensional barcode printed on the said photograph;

A decoding program and the playing program, running in the said digital camera to decode the said 2-dimensional barcode and play back the said sound encoded in the said 2-dimensional barcode.